

Cancer in South Dakota American Indian communities

DRAFT Report for NPTCDI Oversight
Committee and Data Workgroup Meeting,
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**Based on data published by
South Dakota Department of Health and Human Services**

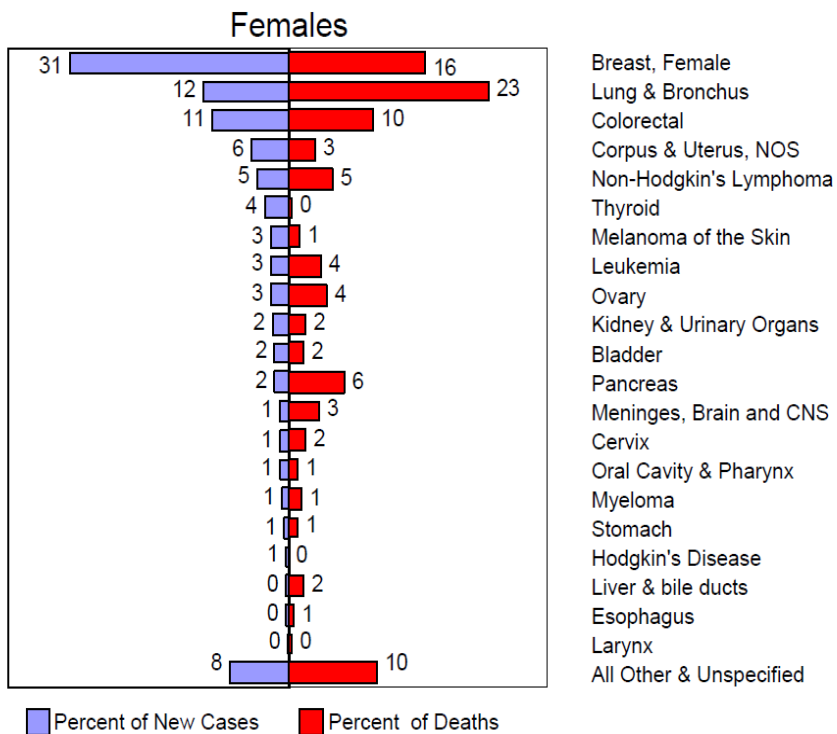
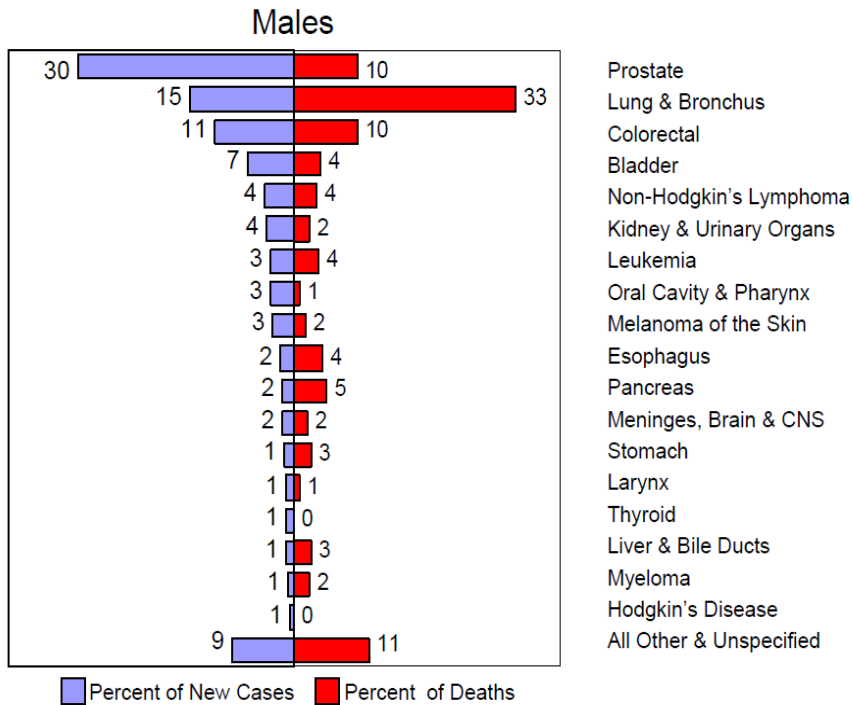
Cancer in South Dakota: South Dakota Cancer Registry Report
<http://getscreened.sd.gov/documents/Cancer2008.pdf>

The Health Behaviors of South Dakotans 2008
<http://doh.sd.gov/Statistics/2008BRFSS/default.aspx>

Cancer Incidence (New Cases) and Deaths

New Cases and Deaths: Summary

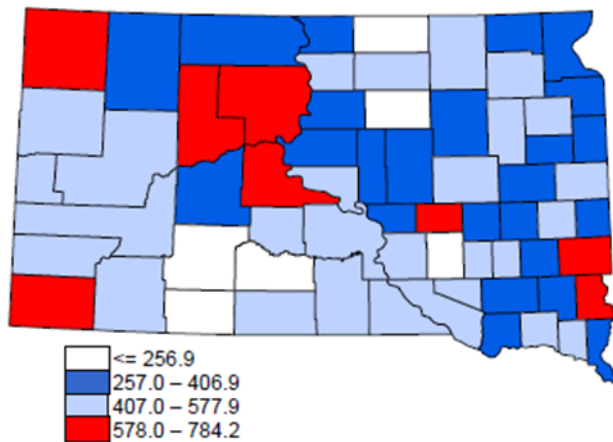
Figure 1. Percent distribution of cancer cases and deaths (all races combined)



New Cases of Cancer

The United States incidence rate for 2008 is not available. However, the United States incidence rate for 2007 was 458.0 and the South Dakota incidence rate was 478.3 per 100,000 persons. Comparing these rates would make South Dakota's rate significantly higher than the United States rate. South Dakota's incidence rate for 2008 is 487.0 per 100,000 persons.

Figure 1: Cancer Incidence Rates by County, South Dakota, 2008



Note: Rates are per 100,000 age-adjusted to US 2000 Standard Population. Source: South Dakota Department of Health

South Dakota has an area of 77,121 square miles with a 2000 Census population of 754,844 persons resulting in a population density of 10.2 persons per square mile. Population densities range from a low of 1.3 in Ziebach County to a high of 183.1 persons per square mile in Minnehaha County. (Preliminary results of the 2010 census report that South Dakota's population is at 814,180 persons resulting in a population density of 9.5 persons per square mile.)

Table 1 : Cancer Cases and Incidence Rates by County South Dakota, 2008 and 2004-2008 Average

County	2008		2004-2008*	
	Cases	Rate	Cases	Rate
South Dakota	3,879	487.0	3,878	485.1
Aurora	12	252.8 ▼	16	370.8 ▼
Beadle	93	424.7 ▼	98	436.9 ▼
Bennett	8	235.2 ▼	13	396.7 ▼
Bon Homme	28	276.5 ▼	41	416.0 ▼
Brookings	106	448.5	115	492.8
Brown	183	447.6	191	462.3
Brule	28	443.0	26	420.0
Buffalo	5	372.6	6	452.7
Butte	53	513.5	52	507.6
Campbell	9	377.9	6	212.1 ▼
Charles Mix	53	499.9	56	512.3
Clark	27	466.5	25	395.8 ▼
Clay	32	313.3 ▼	43	411.6 ▼
Codington	122	454.9	128	476.6 ▼
Corson	10	291.3	9	257.0
Custer	50	544.7	42	469.0
Davison	111	499.8	106	489.2
Day	46	493.2	40	432.8
Deuel	21	329.9 ▼	27	428.1
Dewey	23	602.7	22	549.9
Douglas	21	452.0	23	470.9
Edmunds	30	458.8	21	323.3 ▼
Fall River	70	655.9	66	579.9 ▲
Faulk	11	250.7 ▼	14	358.5 ▼
Grant	45	421.9	42	398.6 ▼
Gregory	42	530.7	32	400.8 ▼
Haakon	10	369.6	14	494.3
Hamlin	30	397.5	31	426.5
Hand	15	277.4 ▼	19	335.8 ▼
Hanson	17	485.7	15	419.3
Harding	9	644.8	6	428.1
Hughes	92	535.8	77	448.2
Hutchinson	38	316.5 ▼	49	393.7 ▼
Hyde	10	344.2	10	409.1
Jackson	7	254.8 ▼	11	388.6
Jerauld	21	639.7	15	429.7
Jones	8	545.8	8	524.0
Kingsbury	35	350.4 ▼	39	453.7
Lake	61	480.4	65	493.3
Lawrence	108	455.5	118	500.4
Lincoln	159	768.5 ▲	131	640.1 ▲
Lyman	18	433.9	21	531.2
McCook	24	344.0	35	464.3
McPherson	12	214.9 ▼	15	285.9 ▼
Marshall	21	315.4 ▼	25	381.1 ▼
Meade	111	528.1	103	492.9
Mellette	4	194.5 ▼	10	496.6
Miner	14	345.2	20	413.3
Minnehaha	823	625.7 ▲	778	590.3 ▲
Moody	25	356.6	27	376.9 ▼
Pennington	479	570.3 ▲	463	552.8 ▲
Perkins	15	282.9 ▼	19	364.8 ▼
Potter	13	270.1 ▼	20	405.9
Roberts	44	361.3 ▼	47	393.5 ▼
Sanborn	11	312.0	13	392.2
Shannon	30	502.8	30	523.5
Spink	27	287.1 ▼	40	404.0 ▼
Stanley	20	766.5	16	606.3
Sully	8	398.6	7	363.2
Todd	24	469.5	23	467.8
Tripp	37	436.0	38	453.5
Turner	42	365.4	48	401.9 ▼
Union	64	484.7	59	444.8
Walworth	40	436.8	38	412.1 ▼
Yankton	104	445.9	102	435.4 ▼
Ziebach	7	690.1	4	306.1 ▼

Incidence rates with counts less than 20 are generally considered unstable.

*Number of the cases and rates are averaged over the 5-year period.

▲ Rate significantly higher; ▼ Rate significantly lower

Rates are per 100,000 age-adjusted to US 2000 Standard Population.

Source: South Dakota Department of Health.

Table 2: Age-adjusted Incidence Rates by County for Selected Sites, 2008

	Colorectal		Lung & Bronchus		Female Breast		Prostate		Bladder		NHL	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
South Dakota	424	51.8	527	64.5	570	137.4	625	173.3	178	21.3	169	21.1
Aurora	3	44.7	*	42.1	3	129.3	*	37.0	0	0.0	0	0.0
Beadle	17	72.3	8	33.6	9	70.1	19	200.1	8	35.5	3	13.3
Bennett	*	27.7	*	53.9	0	0.0	4	272.1	0	0.0	0	0.0
Bon Homme	3	29.6	*	20.2	*	27.7	9	195.2	*	23.4	*	6.2
Brookings	13	54.7	6	24.5	19	165.4	15	149.6	5	21.2	5	20.8
Brown	21	50.8	29	66.6	33	153.9	14	79.7	14	33.2	10	24.3
Brule	6	94.7	3	45.3	*	19.0	6	245.2	*	16.1	3	42.3
Buffalo	0	0.0	0	0.0	0	0.0	*	270.5	*	78.4	0	0.0
Butte	4	37.2	6	55.1	5	94.0	11	226.7	3	30.5	*	9.2
Campbell	0	0.0	*	35.3	3	266.2	3	281.0	0	0.0	0	0.0
Charles Mix	6	49.9	4	31.7	8	140.9	11	220.6	*	18.4	*	8.3
Clark	*	13.9	4	52.9	3	132.8	4	161.4	6	77.0	0	0.0
Clay	5	42.1	6	56.7	3	59.0	6	131.3	0	0.0	*	10.3
Codington	10	35.3	28	99.8	20	140.6	18	154.7	7	24.2	4	15.0
Corson	*	30.2	*	56.6	0	0.0	*	105.1	*	23.3	*	31.0
Custer	5	54.1	5	52.9	5	114.9	9	166.5	*	23.6	3	35.4
Davison	13	54.6	16	68.3	12	91.0	24	269.7	6	24.9	6	27.8
Day	4	39.4	9	98.2	10	189.9	6	134.8	*	8.0	3	29.0
Deuel	*	13.9	6	85.2	3	120.0	4	139.8	*	27.2	0	0.0
Dewey	3	93.3	6	153.2	*	53.5	5	250.4	*	30.8	*	34.5
Douglas	5	99.4	*	43.6	*	58.3	6	293.7	0	0.0	0	0.0
Edmunds	8	122.3	4	51.0	6	208.6	4	127.1	*	11.2	*	17.8
Fall River	*	18.1	13	104.5	10	190.3	7	97.9	*	15.8	3	26.6
Faulk	*	26.2	*	41.4	0	0.0	*	105.1	*	26.2	*	19.6
Grant	12	107.4	3	26.3	6	99.2	5	109.6	*	18.2	*	12.3
Gregory	7	93.4	4	41.6	3	80.3	5	130.4	4	48.5	*	19.5
Haakon	*	31.0	*	36.5	0	0.0	3	281.5	0	0.0	3	105.3
Hamlin	4	40.3	4	55.1	*	59.1	5	158.8	*	29.3	*	10.3
Hand	*	28.3	*	27.2	3	124.3	*	57.5	3	43.1	0	0.0
Hanson	0	0.0	0	0.0	3	163.2	5	299.1	*	39.2	*	52.3
Harding	*	73.9	0	0.0	0	0.0	3	437.6	0	0.0	*	130.4
Hughes	10	56.5	13	78.4	9	92.6	20	260.0	3	17.1	3	19.0
Hutchinson	3	17.7	3	20.2	5	109.1	4	81.6	3	12.6	*	13.0
Hyde	*	79.4	*	23.1	*	136.5	3	236.9	0	0.0	0	0.0
Jackson	*	39.8	*	39.8	*	73.2	*	111.5	*	33.7	0	0.0
Jerauld	*	42.2	*	59.7	*	98.2	3	154.7	*	23.0	0	0.0
Jones	*	58.7	*	92.2	*	317.0	*	128.6	0	0.0	*	58.7
Kingsbury	4	28.6	3	28.2	7	178.8	3	64.4	3	20.3	*	18.9
Lake	12	83.5	5	38.8	10	170.0	7	125.7	4	32.7	4	32.5
Lawrence	8	32.6	12	48.8	17	146.4	16	146.5	5	20.4	8	32.7
Lincoln	17	81.4	17	85.0	27	244.8	29	302.2	4	20.4	9	44.0
Lyman	3	79.0	0	0.0	*	38.5	5	252.2	*	23.9	0	0.0
McCook	*	23.5	*	14.3	*	37.0	6	168.1	*	17.1	*	34.5
McPherson	*	27.2	4	59.0	*	63.8	*	72.1	0	0.0	0	0.0
Marshall	6	80.7	6	86.4	*	58.1	4	133.9	0	0.0	0	0.0
Meade	4	19.3	18	89.0	15	138.2	17	171.9	3	15.3	5	23.8
Mellette	0	0.0	*	46.9	0	0.0	*	92.6	0	0.0	0	0.0
Miner	*	18.2	*	37.3	*	47.6	*	81.3	0	0.0	*	19.0
Minnehaha	83	63.6	109	84.3	138	189.3	137	244.3	24	18.7	34	25.7
Moody	3	43.6	4	52.5	*	68.3	3	96.7	*	26.7	0	0.0
Pennington	42	49.9	67	80.9	75	166.4	77	199.7	22	26.6	19	22.7
Perkins	0	0.0	*	47.9	*	51.6	*	36.4	3	46.3	*	44.9
Potter	*	30.1	0	0.0	*	74.5	*	72.4	*	12.9	0	0.0
Roberts	9	59.1	6	50.5	7	93.3	4	67.9	2	16.2	0	0.0
Sanborn	3	88.3	*	54.9	0	0.0	*	52.9	*	24.1	*	55.3
Shannon	6	91.7	3	69.0	4	99.4	4	312.5	*	27.9	*	14.6
Spink	*	24.7	3	33.2	3	53.0	4	87.2	3	25.9	*	11.0
Stanley	4	134.9	5	206.8	*	75.9	*	132.7	*	101.8	*	64.3
Sully	0	0.0	*	47.4	3	325.1	3	303.7	0	0.0	0	0.0
Todd	*	40.4	4	72.0	*	66.8	*	55.1	0	0.0	*	18.3
Tripp	3	47.4	3	24.5	5	100.0	7	179.5	0	0.0	*	10.3
Turner	6	40.9	6	49.0	8	169.8	10	189.9	0	0.0	*	5.6
Union	3	22.9	10	74.9	13	200.9	3	47.4	*	16.3	*	7.1
Walworth	4	43.2	11	107.1	6	119.9	7	158.6	*	18.0	*	19.0
Yankton	16	66.1	20	85.8	19	149.3	16	161.1	5	22.1	6	24.0
Ziebach	0	0.0	*	73.0	*	608.4	0	0.0	*	193.9	0	0.0

Note: Counts less than 3 are suppressed. Incidence rates with counts less than 20 are generally considered unstable.

Rates are per 100,000 age-adjusted to US 2000 Standard Population.

Source: South Dakota Department of Health.

Table 3: Age-adjusted Incidence Rates by Site, Gender and Race, South Dakota, 2008

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Total	3,879	487.0	2,056	573.3	1,823	423.9	3,665	484.3	190	621.4
Oral Cavity	88	11.4	65	18.1	23	5.6	85	11.7	2	3.9
Lip	12	1.5	11	3.0	1	0.1	12	1.6	0	0.0
Tongue	22	2.9	17	4.8	5	1.3	22	3.0	0	0.0
Salivary Gland	10	1.3	7	1.9	3	0.8	9	1.2	1	1.4
Floor of Mouth	4	0.5	3	0.8	1	0.2	3	0.4	1	2.5
Gum and Other Mouth	10	1.2	4	1.1	6	1.3	9	1.2	0	0.0
Nasopharynx	4	0.5	2	0.5	2	0.5	4	0.6	0	0.0
Tonsil	17	2.3	14	3.9	3	0.8	17	2.4	0	0.0
Oropharynx	2	0.3	1	0.3	1	0.2	2	0.3	0	0.0
Hypopharynx	3	0.4	2	0.5	1	0.2	3	0.4	0	0.0
Other Oral Cavity & Pharynx	4	0.5	4	1.1	0	0.0	4	0.6	0	0.0
Digestive System	696	85.3	376	105.3	320	68.9	639	81.5	47	156.4
Esophagus	46	5.7	38	10.6	8	1.8	41	5.3	5	19.0
Stomach	40	5.0	27	7.7	13	3.2	34	4.4	5	14.9
Small Intestine	16	2.0	11	3.1	5	1.1	15	1.9	1	3.1
Colorectal	425	51.9	226	63.4	199	42.4	396	50.4	24	80.1
Colon Excluding Rectum	307	36.9	162	45.4	145	29.9	289	36.1	14	49.3
Rectum and Rectosigmoid	118	15.0	64	17.9	54	12.6	107	14.2	10	30.8
Anus, Anal Canal and Anorectum	13	1.7	2	0.6	11	2.7	13	1.8	0	0.0
Liver & Intrahepatic Bile Duct	31	3.9	22	6.1	9	1.9	24	3.1	4	15.2
Gallbladder	19	2.2	2	0.6	17	3.2	18	2.1	1	5.0
Other Biliary	12	1.5	6	1.7	6	1.4	11	1.5	1	4.0
Pancreas	77	9.3	36	10.1	41	8.6	73	9.1	3	8.8
Retroperitoneum	4	0.5	4	1.1	0	0.0	3	0.4	1	0.8
Peritoneum, Omentum and Mesentery	13	1.6	2	0.6	11	2.6	11	1.4	2	5.6
Respiratory	562	68.9	328	91.2	234	51.7	530	67.9	32	127.9
Nose, Nasal Cavity and Middle Ear	4	0.5	1	0.3	3	0.5	4	0.5	0	0.0
Larynx	30	3.8	24	6.6	6	1.6	27	3.7	3	11.2
Lung and Bronchus	527	64.5	302	84.1	225	49.6	498	63.7	29	116.8
Pleura	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mediastinum and Other Resp Organs	1	0.1	1	0.3	0	0.0	1	0.1	0	0.0
Bones and Joints	9	1.1	4	1.1	5	1.2	8	1.1	1	0.8
Soft Tissue (Including Heart)	20	2.6	12	3.4	8	2.0	18	2.5	2	2.6
Skin	128	16.6	71	20.1	57	14.0	127	17.7	1	4.0
Melanomas of the Skin	115	15.0	63	17.7	52	12.7	114	15.9	1	4.0
Other Skin	13	1.7	8	2.4	5	1.3	13	1.8	0	0.0
Breast	573	73.2	3	0.9	570	137.4	548	74.0	24	79.4
Breast, Female	570	137.4			570	137.4	545	139.3	24	139.7
Breast, Male	3	0.9	3	0.9			3	0.9	0	0.0
Female	193	47.0			193	47.0	178	43.0	14	64.4
Vulva	16	3.4			16	3.4	16	3.4	0	0.0
Vagina	0	0.0			0	0.0	0	0.0	0	0.0
Cervix Uteri	25	6.7			25	6.7	20	5.3	5	20.9
Corpus and Uterus, NOS	101	24.7			101	24.7	93	23.9	8	36.5
Corpus Uteri	99	24.3			99	24.3	91	22.2	8	36.5
Uterus, NOS	2	0.4			2	0.4	2	0.4	0	0.0
Ovary	50	12.0			50	12.0	48	11.5	1	7.1
Other Female Genital Organs	1	0.2			1	0.2	1	0.2	0	0.0

Source: South Dakota Department of Health

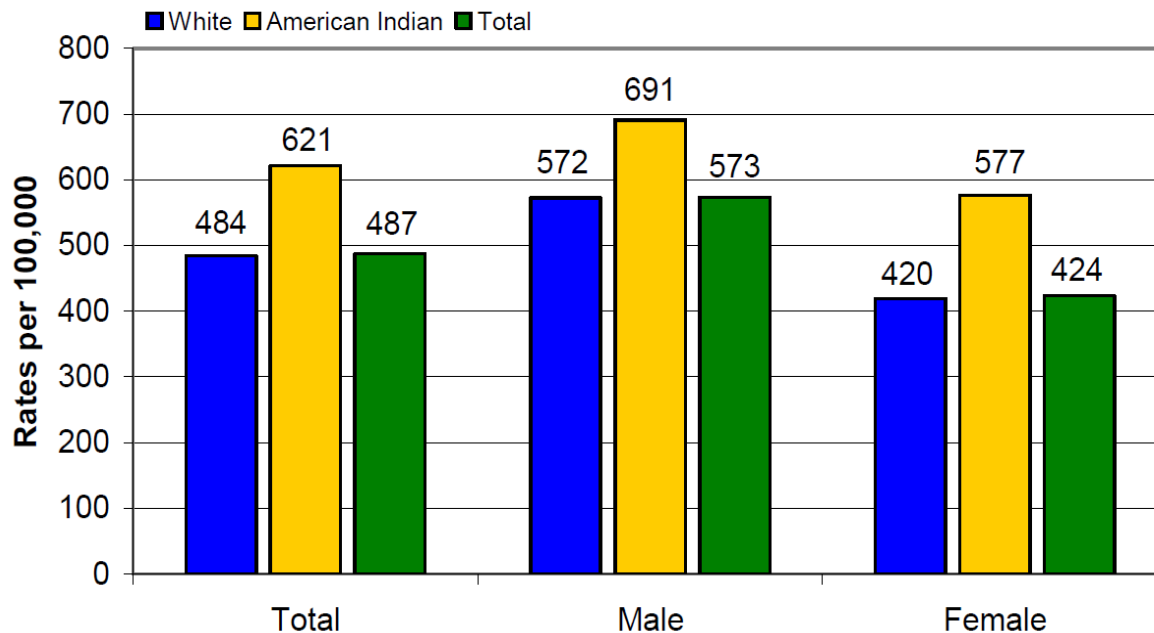
Table 3: Age-adjusted Incidence Rates by Site, Gender and Race, South Dakota, 2008 (continued)

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Male	658	182.3	658	182.3			625	182.0	25	193.5
Penis	4	1.2	4	1.2			2	0.6	2	11.7
Prostate	625	173.3	625	173.3			595	172.7	22	180.0
Testis	28	7.6	28	7.6			27	8.3	1	1.8
Other Male Genital Organs	1	0.3	1	0.3			1	0.3	0	0.0
Urinary	308	37.9	219	61.6	89	19.9	291	37.4	16	49.7
Bladder	178	21.3	136	38.8	42	9.0	173	21.5	5	18.8
Kidney and Renal Pelvis	125	16.0	80	22.0	45	10.5	114	15.3	10	25.5
Ureter	3	0.3	1	0.3	2	0.4	2	0.2	1	5.3
Other Urinary Organs	2	0.3	2	0.6	0	0.0	2	0.3	0	0.0
Eye and Orbit	1	0.1	0	0.0	1	0.1	1	0.1	0	0.0
Brian & CNS	58	7.6	32	8.8	26	6.6	54	7.6	4	7.9
Brain	58	7.6	32	8.8	26	6.6	54	7.6	4	7.9
Meninges & CNS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Endocrine	94	12.8	26	7.2	68	18.5	89	13.2	4	9.4
Thyroid	89	12.1	23	6.4	66	17.9	84	12.4	4	9.4
Other Endocrine	5	0.7	3	0.8	2	0.6	5	0.8	0	0.0
Lymphomas	192	24.1	96	26.8	96	22.3	185	24.6	7	26.8
Hodgkin's Lymphoma	23	3.0	12	3.1	11	2.9	23	3.3	0	0.0
Non-Hodgkin's Lymphoma	169	21.1	84	23.7	85	19.4	162	21.3	7	26.8
Myeloma	40	4.9	18	5.0	22	4.8	37	4.7	2	8.4
Leukemia	116	14.2	65	18.1	51	11.4	113	14.6	3	6.6
Acute Lymphocytic	8	1.1	3	0.8	5	1.3	7	1.1	1	0.8
Chronic Lymphocytic	52	6.3	30	8.4	22	4.6	52	6.6	0	0.0
Other Lymphocytic	3	0.4	3	0.9	0	0.0	3	0.4	0	0.0
Acute Myeloid	28	3.5	13	3.6	15	3.4	27	3.6	1	4.0
Acute Monocytic	2	0.2	1	0.3	1	0.2	2	0.2	0	0.0
Chronic Myeloid	13	1.5	7	2.1	6	1.2	12	1.4	1	1.8
Other Acute Leukemia	2	0.3	1	0.3	1	0.3	2	0.3	0	0.0
Other Leukemia	8	1.0	7	1.9	1	0.2	8	1.0	0	0.0
Myeloproliferative & Myelodysplastic	45	5.3	24	6.9	21	4.3	44	5.4	1	5.3
Mesothelioma	7	0.9	6	1.6	1	0.2	7	0.9	0	0.0
Other Sites	91	11.0	53	15.0	38	7.9	86	10.8	5	14.8

Rates are per 100,000 age-adjusted to US 2000 Standard Population.

Source: South Dakota Department of Health

Figure 2: All Sites Cancer Incidence Rates by Race in South Dakota, 2008



Note: Rates are per 100,000 age-adjusted to US 2000 Standard Population.
Source: South Dakota Department of Health

Table 4. Stage at diagnosis for selected sites by Race, South Dakota, 2008

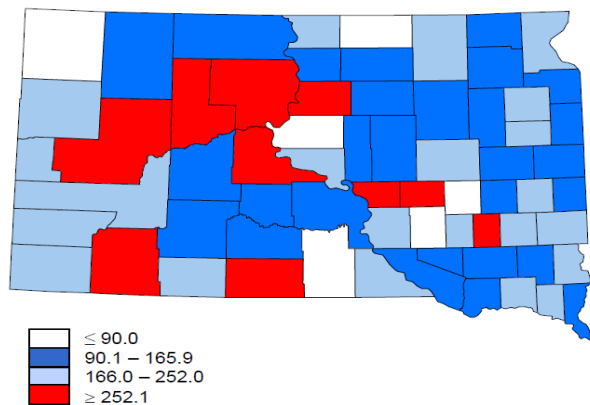
	White						American Indian					
	Localized		Regional		Distant		Localized		Regional		Distant	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Bronchus & Lungs	97	5.4%	82	12.5%	277	32.4%	2	2.4%	10	23.8%	13	27.7%
Colorectal	195	10.9%	115	17.5%	62	7.2%	6	7.1%	9	21.4%	8	17.0%
Melanoma of the Skin	97	5.4%	5	0.8%	7	0.8%	1	1.2%	0	0.0%	0	0.0%
Female Breast	325	18.2%	182	27.7%	31	3.6%	21	24.7%	3	7.1%	0	0.0%
Kidney & Urinary Organs	77	4.3%	10	1.5%	18	2.1%	7	8.2%	0	0.0%	2	4.3%
Uterus	64	3.6%	17	2.6%	9	1.1%	5	5.9%	1	2.4%	2	4.3%
Pancreas	6	0.3%	21	3.2%	37	4.3%	0	0.0%	1	2.4%	2	4.3%
Prostate	530	29.7%	38	5.8%	11	1.3%	18	21.2%	0	0.0%	3	6.4%
Bladder	71	4.0%	7	1.1%	8	0.9%	3	3.5%	0	0.0%	1	2.1%
Non-Hodgkin's Lymphoma	51	2.9%	24	3.6%	76	8.9%	3	3.5%	2	4.8%	2	4.3%
Leukemia	0	0.0%	0	0.0%	113	13.2%	0	0.0%	0	0.0%	3	6.4%

Source: South Dakota Department of Health

Cancer Deaths

The United States mortality rate for 2008 is not available. The United States mortality rate was 178.1 and the South Dakota mortality rate was 191.6 per 100,000 persons in 2007. South Dakota's mortality rate for 2008 is 186.2 per 100,000 persons.

Figure 3. Cancer Mortality Rates by County, South Dakota, 2008



Note: Rates are per 100,000 age-adjusted to US 2000 Standard Population.
Source: South Dakota Department of Health

Table 4. Cancer Mortality Rates by County, South Dakota, 2008

County	2008		2004-2008 [^]	
	Cases	Rate	Cases	Rate
South Dakota	1,561	186.2	1,579	188.7
Aurora	3	63.2	5	105.8
Beadle	49	204.4	47	188.1
Bennett	5	167.7	5	166.6
Bon Homme	13	120.1	19	170.8
Brookings	38	147.6	42	173.4
Brown	87	196.6	80	180.8
Brule	14	204.2	11	173.5
Buffalo	3	298.8	3	251.7
Butte	25	232.2	25	232.3
Campbell	5	202.9	4	130.5
Charles Mix	14	116.2	17	147.9
Clark	7	97.8	12	171.6
Clay	16	141.1	20	183.6
Codington	64	232.6	57	203.0
Corson	5	150.1	5	148.5
Custer	18	199.9	19	209.7
Davison	51	221.4	46	198.9
Day	11	116.8	13	130.5
Deuel	9	119.9	13	178.0
Dewey	12	302.3	12	310.6
Douglas	8	159.2	9	170.2
Edmunds	8	114.5	8	112.4
Fall River	29	224.4	26	214.0
Faulk	5	123.5	6	142.4
Grant	16	138.9	16	143.9
Gregory	17	187.6	15	178.0
Haakon	4	108.9	7	196.0
Hamlin	14	174.2	16	203.5
Hand	9	140.9	10	144.8
Hanson	9	253.6	6	176.2
Harding	0	0.0	*	110.5
Hughes	34	190.4	25	139.0
Hutchinson	26	159.7	22	129.8
Hyde	3	101.1	5	165.8
Jackson	4	155.8	6	238.4
Jerauld	10	261.0	8	190.7
Jones	*	119.3	3	191.9
Kingsbury	14	143.4	17	172.8
Lake	25	182.3	20	147.4
Lawrence	51	204.7	52	205.7
Lincoln	43	204.2	51	247.4
Lyman	6	150.8	5	130.2
McCook	20	216.1	17	186.4
McPherson	4	53.8	7	115.6
Marshall	9	126.9	11	143.1
Meade	54	263.8	51	250.3
Mellette	3	135.7	5	241.7
Miner	9	156.1	9	166.9
Minnehaha	273	206.8	280	212.0
Moody	9	130.5	10	143.3
Pennington	168	204.1	169	205.1
Perkins	5	99.9	9	154.0
Potter	13	269.7	10	184.2
Roberts	32	243.3	27	211.4
Sanborn	*	57.4	6	159.9
Shannon	16	355.8	16	309.3
Spink	14	132.7	15	142.5
Stanley	9	339.3	7	265.8
Sully	*	47.4	*	123.6
Todd	11	312.4	10	206.7
Tripp	8	76.3	16	167.2
Turner	20	125.6	21	142.9
Union	33	241.9	32	234.9
Walworth	13	135.3	17	175.0
Yankton	45	183.7	41	171.2
Ziebach	4	403.3	*	207.1

^{*} Counts less than 3 are suppressed. Incidence rates with counts less than 20 are generally considered unstable.

[^] Number of the cases and rates are averaged over the 5-year period.

▲ Rate significantly higher; ▼ Rate significantly lower

Rates are per 100,000 age-adjusted to US 2000 Standard Population.

Source: South Dakota Department of Health.

Table 5. Age-adjusted Mortality Rates by County for Selected Sites, South Dakota, 2008

	Colorectal		Lung & Bronchus		Female Breast		Prostate		Bladder		NHL	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
South Dakota	153	18.3	445	53.6	118	26.5	78	22.7	47	5.3	68	7.7
Aurora	0	0.0	*	19.4	*	51.7	*	37.0	0	0.0	0	0.0
Beadle	9	42.9	14	60.5	4	24.5	5	49.3	*	3.8	3	12.2
Bennett	*	36.0	3	97.4	0	0.0	0	0.0	0	0.0	0	0.0
Bon Homme	*	19.8	5	54.5	0	0.0	0	0.0	0	0.0	*	6.2
Brookings	5	16.5	8	30.3	5	41.0	*	9.1	*	3.0	4	13.7
Brown	11	25.9	23	51.7	7	27.4	*	6.1	3	6.8	7	14.8
Brule	*	28.7	*	12.2	*	82.7	*	34.3	0	0.0	*	14.0
Buffalo	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Butte	*	10.1	11	104.1	*	12.6	*	38.1	*	8.6	0	0.0
Campbell	0	0.0	0	0.0	*	197.5	0	0.0	0	0.0	0	0.0
Charles Mix	0	0.0	4	33.4	*	18.2	0	0.0	*	5.2	0	0.0
Clark	0	0.0	*	30.4	*	26.7	0	0.0	0	0.0	0	0.0
Clay	3	25.4	6	55.7	0	0.0	*	43.2	0	0.0	*	7.0
Codington	3	10.0	27	99.1	5	38.9	*	8.3	3	10.2	*	6.5
Corson	0	0.0	*	51.8	*	41.8	0	0.0	0	0.0	0	0.0
Custer	0	0.0	4	37.9	*	38.5	0	0.0	*	14.3	3	34.2
Davison	6	23.9	17	77.0	5	34.4	*	12.2	*	6.7	*	8.5
Day	0	0.0	5	55.4	0	0.0	0	0.0	*	8.0	0	0.0
Deuel	*	24.5	5	71.3	0	0.0	0	0.0	0	0.0	*	13.6
Dewey	*	22.5	6	134.8	0	0.0	0	0.0	0	0.0	*	34.5
Douglas	0	0.0	0	0.0	*	35.0	0	0.0	0	0.0	0	0.0
Edmunds	0	0.0	*	22.4	*	56.8	*	27.0	0	0.0	0	0.0
Fall River	*	15.3	11	84.0	0	0.0	*	12.9	*	7.8	*	7.3
Faulk	*	26.2	*	26.2	0	0.0	0	0.0	0	0.0	*	18.7
Grant	5	44.5	*	16.4	*	42.1	3	56.0	0	0.0	0	0.0
Gregory	*	21.8	3	22.7	*	38.5	*	52.0	0	0.0	0	0.0
Haakon	*	31.0	*	57.2	0	0.0	*	64.6	0	0.0	0	0.0
Hamlin	*	21.8	6	82.2	0	0.0	3	91.7	0	0.0	0	0.0
Hand	0	0.0	4	65.4	*	19.1	0	0.0	*	13.6	0	0.0
Hanson	0	0.0	*	57.7	0	0.0	0	0.0	0	0.0	0	0.0
Harding	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hughes	3	16.6	12	69.0	0	0.0	*	15.4	0	0.0	0	0.0
Hutchinson	2	14.3	7	40.6	*	5.1	3	44.8	*	7.6	0	0.0
Hyde	0	0.0	0	0.0	*	70.6	0	0.0	0	0.0	0	0.0
Jackson	*	42.4	*	39.8	*	51.7	*	81.6	0	0.0	0	0.0
Jerauld	*	16.5	3	91.3	0	0.0	0	0.0	*	16.5	0	0.0
Jones	0	0.0	0	0.0	*	119.3	*	119.3	0	0.0	0	0.0
Kingsbury	3	34.9	6	60.2	0	0.0	0	0.0	0	0.0	0	0.0
Lake	*	5.5	2	15.7	3	48.0	*	16.9	0	0.0	*	5.7
Lawrence	6	25.3	17	69.3	4	30.5	3	31.3	3	11.1	0	0.0
Lincoln	3	14.0	13	66.6	*	20.6	3	36.0	*	10.9	*	3.8
Lyman	0	0.0	4	96.4	0	0.0	0	0.0	0	0.0	0	0.0
McCook	0	0.0	5	56.9	*	27.4	3	77.4	0	0.0	0	0.0
McPherson	0	0.0	*	28.9	0	0.0	0	0.0	*	11.3	0	0.0
Marshall	*	31.5	*	8.8	*	39.4	0	0.0	0	0.0	0	0.0
Meade	*	4.8	16	78.3	6	57.6	3	37.2	3	15.1	5	24.9
Mellette	0	0.0	0	0.0	*	95.2	0	0.0	0	0.0	0	0.0
Miner	*	12.2	0	0.0	*	32.5	*	67.6	*	12.2	0	0.0
Minnehaha	24	18.0	75	58.2	15	19.4	10	21.0	11	8.2	15	11.2
Moody	*	32.5	*	15.5	*	48.4	*	62.9	*	17.8	0	0.0
Pennington	13	15.8	40	48.5	18	39.1	7	20.9	6	7.3	8	10.0
Perkins	0	0.0	*	57.4	*	28.4	0	0.0	0	0.0	0	0.0
Potter	*	19.7	*	41.5	3	125.4	*	71.1	0	0.0	*	40.7
Roberts	8	55.1	8	59.7	3	36.2	0	0.0	0	0.0	*	16.7
Sanborn	*	32.6	*	24.8	0	0.0	0	0.0	0	0.0	0	0.0
Shannon	5	109.0	4	111.9	*	23.9	0	0.0	0	0.0	*	26.5
Spink	*	17.7	*	11.0	0	0.0	*	44.0	0	0.0	0	0.0
Stanley	0	0.0	3	106.1	*	69.9	0	0.0	0	0.0	*	101.8
Sully	0	0.0	*	47.4	0	0.0	0	0.0	0	0.0	0	0.0
Todd	*	18.3	4	110.9	0	0.0	0	0.0	0	0.0	0	0.0
Tripp	*	10.3	*	16.5	*	18.3	0	0.0	0	0.0	0	0.0
Turner	4	29.6	4	26.3	0	0.0	0	0.0	*	5.6	*	5.2
Union	*	15.3	10	73.7	3	41.9	*	29.5	0	0.0	3	21.9
Walworth	*	29.8	4	36.6	0	0.0	*	24.8	0	0.0	0	0.0
Yankton	4	15.8	16	63.5	4	27.1	5	49.7	0	0.0	0	0.0
Ziebach	0	0.0	*	193.9	0	0.0	0	0.0	0	0.0	0	0.0

Note: * Counts less than 3 are suppressed. Mortality rates with counts less than 20 are generally considered unstable. Rates are per 100,000 age-adjusted to US 2000 Standard Population. Source: South Dakota Department of Health.

Table 6. Age-adjusted Mortality Rates by Site, Gender, and Race, South Dakota, 2008

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Total	1,561	186.2	815	230.9	746	156.4	1,479	183.4	71	252.1
Oral Cavity	16	1.9	8	2.2	8	1.6	15	1.9	0	0.0
Lip	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tongue	2	0.2	2	0.5	0	0.0	2	0.3	0	0.0
Salivary Gland	1	0.1	1	0.3	0	0.0	1	0.1	0	0.0
Floor of Mouth	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Gum and Other Mouth	3	0.3	0	0.0	3	0.4	3	0.3	0	0.0
Nasopharynx	3	0.4	1	0.3	2	0.5	2	0.3	0	0.0
Tonsil	1	0.1	0	0.0	1	0.2	1	0.1	0	0.0
Oropharynx	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hypopharynx	3	0.4	2	0.6	1	0.2	3	0.4	0	0.0
Other Oral Cavity & Pharynx	3	0.4	2	0.5	1	0.2	3	0.4	0	0.0
Digestive System	370	44.0	209	59.1	161	32.2	322	39.5	21	67.9
Esophagus	40	4.8	35	9.8	5	1.0	38	4.8	2	9.4
Stomach	30	3.5	22	6.3	8	1.7	26	3.1	3	8.0
Small Intestine	4	0.5	3	0.9	1	0.3	4	0.5	0	0.0
Colorectal	153	18.3	79	22.1	74	14.6	138	17.0	13	41.0
Colon Excluding Rectum	124	14.7	63	17.6	61	11.7	113	13.8	9	28.9
Rectum and Rectosigmoid	29	3.5	16	4.5	13	2.9	25	3.2	4	12.1
Anus, Anal Canal and Anorectum	1	0.1	1	0.3	0	0.0	1	0.2	0	0.0
Liver & Intrahepatic Bile Duct	35	4.2	21	5.8	14	2.7	21	2.7	1	5.0
Gallbladder	7	0.8	2	0.5	5	0.9	7	0.8	0	0.0
Other Biliary	4	0.4	2	0.6	2	0.3	4	0.4	0	0.0
Pancreas	87	10.3	39	11.4	48	10.0	83	10.2	2	4.6
Retroperitoneum	1	0.1	0	0.0	1	0.1	1	0.1	0	0.0
Peritoneum, Omentum and Mesentery	8	0.9	5	1.4	3	0.6	8	1.0	0	0.0
Respiratory	463	55.7	281	78.9	182	39.3	439	55.1	21	89.6
Nose, Nasal Cavity and Middle Ear	4	0.5	0	0.0	4	0.9	4	0.5	0	0.0
Larynx	9	1.1	6	1.7	3	0.9	6	0.8	1	5.3
Lung and Bronchus	445	53.6	272	76.4	173	37.2	424	53.2	20	84.2
Pleura	2	0.2	1	0.3	1	0.2	2	0.2	0	0.0
Mediastinum and Other Resp Organs	3	0.3	2	0.5	1	0.1	3	0.3	0	0.0
Bones and Joints	5	0.6	3	0.8	2	0.4	5	0.7	0	0.0
Soft Tissue (Including Heart)	12	1.4	4	1.2	8	1.8	11	1.4	1	5.3
Skin	34	4.2	21	6.1	13	2.9	33	4.3	1	3.1
Melanomas of the Skin	23	2.9	13	3.7	10	2.2	23	3.0	0	0.0
Other Skin	11	1.3	8	2.3	3	0.7	10	1.3	1	3.1
Breast	119	14.6	1	0.3	118	26.5	112	14.4	7	22.3
Breast, Female	118	26.5			118	26.5	111	26.1	7	39.8
Breast, Male	1	0.3	1	0.3			1	0.3	0	0.0
Female	73	15.6			73	15.6	68	15.0	5	24.5
Vulva	0	0.0			0	0.0	0	0.0	0	0.0
Vagina	0	0.0			0	0.0	0	0.0	0	0.0
Cervix Uteri	15	3.3			15	3.3	12	2.6	3	13.1
Corpus and Uterus, NOS	23	4.9			23	4.9	22	4.9	1	7.1
Corpus Uteri	17	3.6			17	3.6	16	3.5	1	7.1
Uterus, NOS	6	1.3			6	1.3	6	1.3	0	0.0
Ovary	33	7.1			33	7.1	32	7.2	1	4.3
Other Female Genital Organs	2	0.3			2	0.3	2	0.3	0	0.0

Source: South Dakota Department of Health

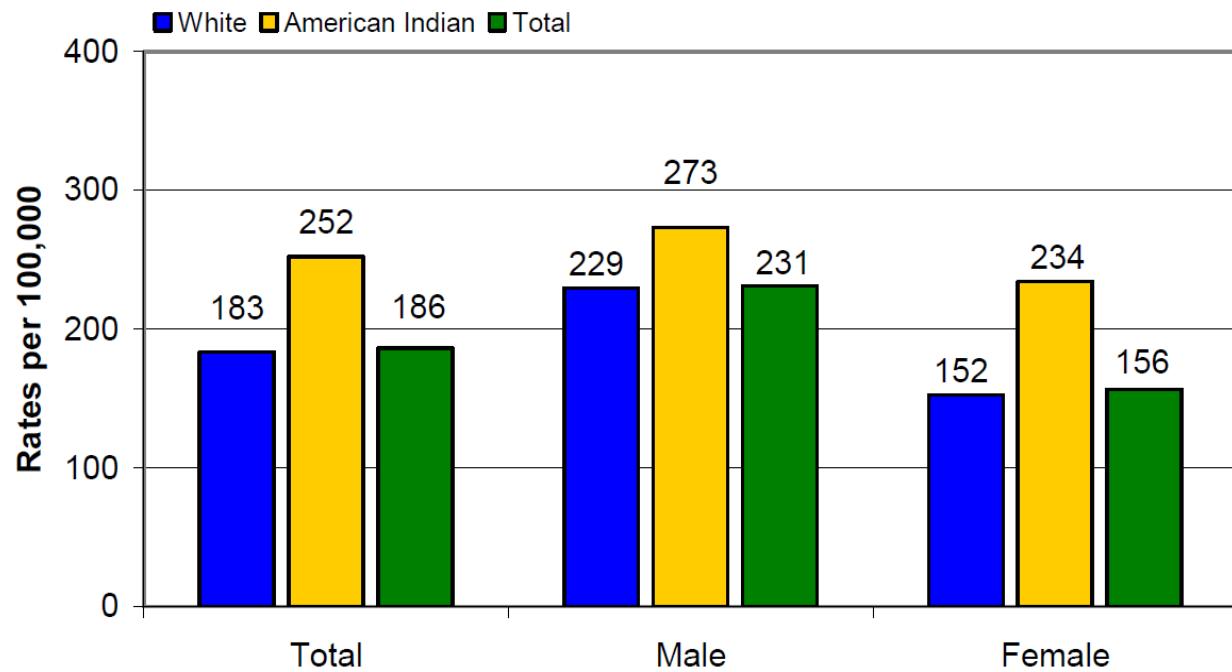
Table 6. Age-adjusted Mortality Rates by Site, Gender, and Race, South Dakota, 2008 (cont'd)

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Male	80	23.3	80	23.3			78	23.4	0	0.0
Penis	0	0.0	0	0.0			0	0.0	2	10.5
Prostate	78	22.7	78	22.7			76	22.8	2	13.8
Testis	2	0.6	2	0.6			2	0.6	0	0.0
Other Male Genital Organs	0	0.0	0	0.0			0	0.0	0	0.0
Urinary	83	9.7	54	15.3	29	5.5	80	9.6	3	10.5
Bladder	47	5.3	34	9.8	13	2.2	46	5.3	1	5.7
Kidney and Renal Pelvis	33	4.0	18	5.0	15	3.1	31	3.9	2	4.8
Ureter	3	0.4	2	0.6	1	0.2	3	0.4	0	0.0
Other Urinary Organs	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Eye and Orbit	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Brian & CNS	42	5.3	16	4.5	26	6.2	40	5.3	2	3.5
Brain	41	5.2	16	4.5	25	5.9	40	5.3	1	1.8
Meninges& CNS	1	0.1	0	0.0	1	0.3	0	0.0	1	1.8
Endocrine	8	1.0	4	1.1	4	0.9	7	0.9	1	3.1
Thyroid	6	0.7	3	0.8	3	0.7	5	0.6	1	3.1
Other Endocrine	2	0.3	1	0.3	1	0.3	2	0.3	0	0.0
Lymphomas	70	7.9	29	8.2	41	7.7	69	8.1	1	5.0
Hodgkin's Lymphoma	2	0.2	0	0.0	2	0.5	2	0.3	0	0.0
Non-Hodgkin's Lymphoma	68	7.7	29	8.2	39	7.2	67	7.8	1	5.0
Myeloma	29	3.4	19	5.5	10	2.0	29	3.6	0	0.0
Leukemia	61	7.0	31	8.8	30	5.6	59	7.1	2	6.3
Acute Lymphocytic Leukemia	7	0.9	4	1.1	3	0.6	7	0.9	0	0.0
Chronic Lymphocytic Leukemia	16	1.7	9	2.6	7	1.0	16	1.8	0	0.0
Other Lymphocytic Leukemia	1	0.1	1	0.3	0	0.0	1	0.1	0	0.0
Acute Myeloid Leukemia	20	2.4	10	2.7	10	1.9	19	2.3	1	2.3
Acute Monocytic Leukemia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic Myeloid Leukemia	4	0.4	2	0.7	2	0.4	4	0.4	0	0.0
Other Acute Leukemia	8	0.9	4	1.1	4	0.7	8	1.0	0	0.0
Other Leukemia	5	0.6	1	0.3	4	0.8	4	0.5	1	4.0
Immunoproliferative Diseases	3	0.3	2	0.6	1	0.2	3	0.4	0	0.0
Mesothelioma	2	0.2	2	0.6	0	0.0	2	0.2	0	0.0
Ill-Defined and Unspecified Sites	91	10.8	51	14.3	40	8.2	86	10.7	4	16.4

Rates are per 100,000 age-adjusted to US 2000 Standard Population.

Source: South Dakota Department of Health

Figure 4. All Sites Cancer Mortality Rates by Race, South Dakota, 2008



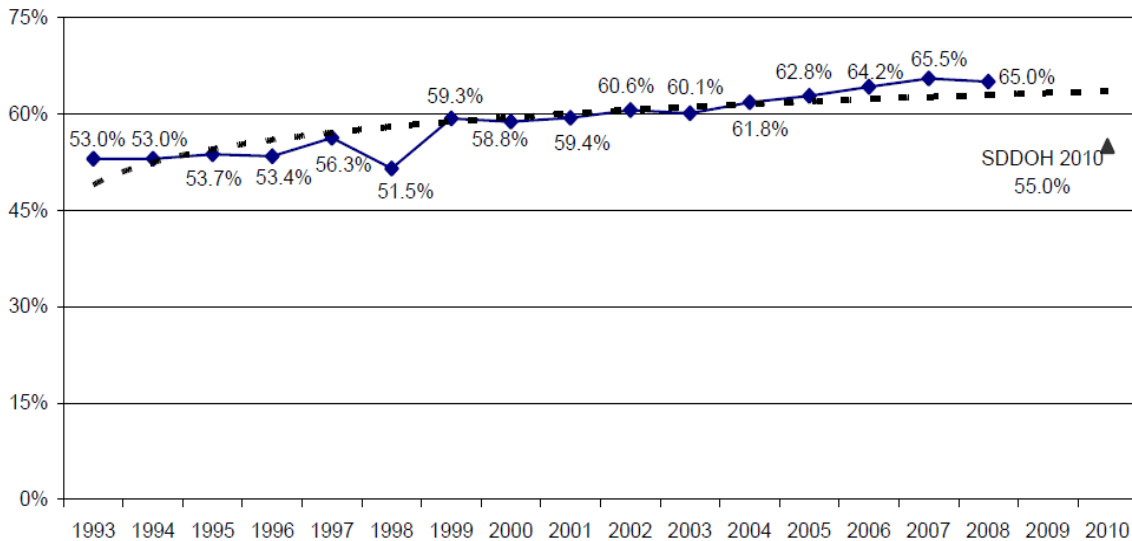
Note: Rates are per 100,000 age-adjusted to US 2000 Standard Population.
Source: South Dakota Department of Health

Cancer Related Health Behaviors and Screening

Overweight and Obesity

Definition: Overweight or obese is defined as having a Body Mass Index (BMI) of 25.0 or above. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds, divided by their height in inches, divided by height in inches (again) times 703. The mathematical equation for BMI is: $\text{weight (lb)}/\text{height (in)}^2 \times 703$.

Figure 5. Percent of Respondents Who Are Overweight or Obese Based on Body Mass Index, South Dakota 1993-2008



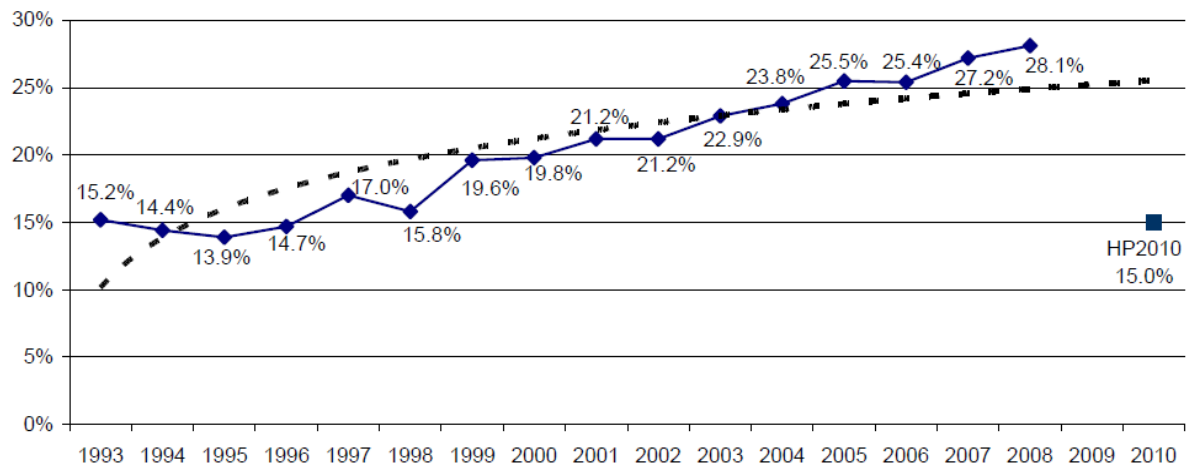
Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1993-2008

Table 7. Respondents Who Are Overweight or Obese, South Dakota 2008

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,694	65.0%	(63.1-66.7)	2,813	73.4	(70.6-76.0)	3,881	56.2	(53.8-58.6)
Age									
18-24	217	48.9	(40.7-57.2)	*	*	*	*	*	*
25-34	636	63.8	(59.1-68.2)	262	74.9	(68.1-80.7)	374	51.1	(45.1-57.0)
35-44	883	65.6	(61.7-69.3)	376	73.8	(68.1-78.9)	507	56.5	(51.4-61.5)
45-54	1,301	71.0	(68.0-73.9)	598	79.9	(75.7-83.5)	703	61.5	(57.0-65.7)
55-64	1,374	72.8	(69.9-75.5)	605	79.5	(75.3-83.2)	769	65.4	(61.2-69.3)
65-74	1,097	72.2	(68.9-75.3)	487	81.6	(77.4-85.2)	610	63.3	(58.5-67.9)
75+	1,156	59.6	(56.2-63.0)	380	66.4	(60.5-71.9)	776	55.2	(51.0-59.3)
Race									
White	5,877	64.8	(62.9-66.6)	2,474	73.7	(70.8-76.3)	3,403	55.6	(53.1-58.1)
American Indian	620	71.5	(64.6-77.5)	246	72.3	(61.3-81.1)	374	70.7	(61.8-78.3)

Definition: Obesity is defined as having a Body Mass Index (BMI) of 30.0 or above. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds divided by height in inches, divided by height in inches (again) times 703. The mathematical equation for BMI is: weight (lb)/height (in) ² x 703.

Figure 6. Percent of Respondents Who Are Obese Based on Body Mass Index, South Dakota 1993-2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1993-2008

Table 8. Respondents Who Are Obese, South Dakota 2008

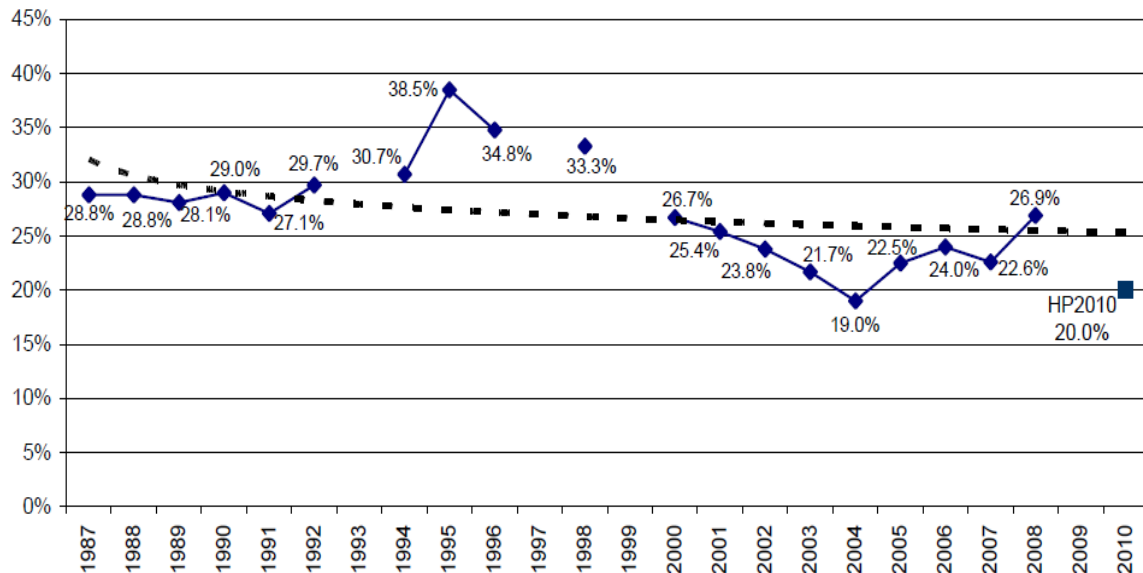
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,694	28.1	(26.5-29.8)	2,813	30.4	(28.0-32.9)	3,881	25.8	(23.7-27.9)
Age									
18-24	217	19.9	(13.8-27.8)	*	*	*	*	*	*
25-34	636	28.8	(24.6-33.4)	262	32.8	(26.3-40.0)	374	24.3	(19.6-29.6)
35-44	883	27.7	(24.3-31.4)	376	27.8	(22.8-33.5)	507	27.5	(23.2-32.4)
45-54	1,301	34.2	(31.1-37.4)	598	38.4	(33.8-43.3)	703	29.5	(25.7-33.7)
55-64	1,374	32.5	(29.6-35.5)	605	34.5	(30.2-39.2)	769	30.3	(26.6-34.2)
65-74	1,097	31.6	(28.5-35.0)	487	36.9	(32.0-42.0)	610	26.7	(22.8-31.0)
75+	1,156	18.8	(16.1-21.7)	380	20.0	(15.7-25.1)	776	18.0	(14.8-21.6)
Race									
White	5,877	27.7	(26.1-29.5)	2,474	30.2	(27.7-32.8)	3,403	25.2	(23.0-27.4)
American Indian	620	38.4	(32.7-44.5)	246	39.3	(30.6-48.6)	374	37.6	(30.4-45.5)

Physical Activity

NO LEISURE TIME PHYSICAL ACTIVITY

Definition: Respondents who report no leisure time physical activity or exercise during the past 30 days other than the respondent's regular job.

Figure 7. Percent of Respondents Who Reported No Leisure Time Physical Activity, South Dakota 1987-1992, 1994-1996, 1998, and 2000-2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1987-1992, 1994-1996, 1998, 2000-2006, and 2008

Table 9. Respondents Who Reported No Leisure Time Physical Activity, South Dakota 2008

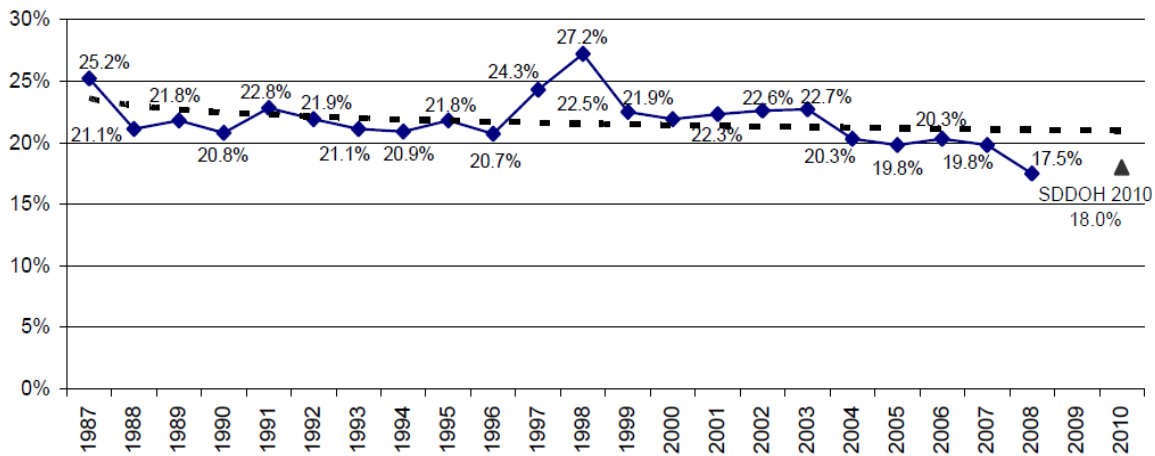
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,974	26.9	(25.3-28.4)	2,849	27.4	(25.1-29.9)	4,125	26.3	(24.4-28.3)
Age									
18-24	222	23.4	(17.1-31.2)	*	*	*	*	*	*
25-34	664	19.8	(16.3-23.9)	268	20.0	(14.6-26.8)	396	19.6	(15.5-24.4)
35-44	916	25.8	(22.6-29.3)	379	28.1	(23.1-33.6)	537	23.5	(19.6-27.9)
45-54	1,355	27.0	(24.2-29.9)	602	30.6	(26.2-35.3)	753	23.3	(19.9-27.0)
55-64	1,439	26.4	(23.8-29.2)	612	28.4	(24.4-32.8)	827	24.3	(21.0-27.9)
65-74	1,134	32.3	(29.1-35.7)	491	31.8	(27.1-36.8)	643	32.8	(28.4-37.5)
75+	1,191	40.4	(37.1-43.8)	387	37.0	(31.5-42.8)	804	42.6	(38.6-46.8)
Race									
White	6,130	26.8	(25.2-28.5)	2,503	27.9	(25.5-30.5)	3,627	25.8	(23.8-27.9)
American Indian	633	27.0	(21.9-32.7)	250	18.6	(12.6-26.6)	383	35.0	(27.7-43.1)

Tobacco Use

CIGARETTE SMOKING

Definition: Respondents who report having smoked at least 100 cigarettes in their lifetime and now smoke every day or smoke some days.

Figure 8. Percent of Respondents Who Currently Smoke Cigarettes, South Dakota 1987-2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1987-2008

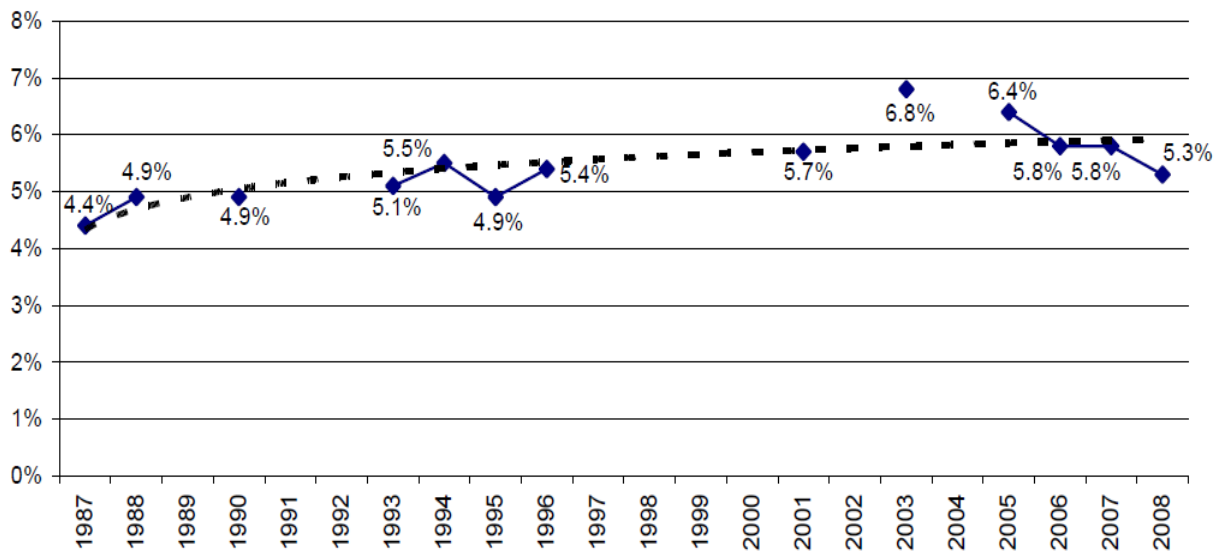
Table 10. Respondents Who Currently Smoke, South Dakota 2008

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,956	17.5	(16.2-19.0)	2,839	18.9	(16.8-21.3)	4,117	16.2	(14.6-17.8)
Age									
18-24	221	22.2	(16.3-29.6)	*	*	*	*	*	*
25-34	665	23.6	(19.9-27.7)	269	27.6	(21.7-34.3)	396	19.2	(15.3-23.9)
35-44	916	19.3	(16.4-22.5)	379	15.8	(12.0-20.6)	537	22.9	(18.9-27.4)
45-54	1,353	18.0	(15.7-20.6)	601	17.7	(14.4-21.5)	752	18.3	(15.2-21.9)
55-64	1,432	17.8	(15.5-20.4)	609	19.8	(16.2-23.9)	823	15.8	(13.1-19.0)
65-74	1,133	9.5	(7.8-11.6)	490	10.3	(7.7-13.5)	643	8.9	(6.6-11.8)
75+	1,186	4.3	(3.1-5.9)	384	4.9	(3.0-8.1)	802	3.9	(2.6-5.8)
Race									
White	6,117	15.9	(14.5-17.4)	2,496	17.5	(15.2-20.0)	3,621	14.3	(12.7-16.0)
American Indian	632	44.0	(38.0-50.2)	249	42.9	(33.8-52.5)	383	45.1	(37.3-53.1)

SMOKELESS TOBACCO

Definition: Respondents who report that they use chewing tobacco or snuff every day or some days.

Figure 9. Percent of Respondents Who Use Smokeless Tobacco, South Dakota 1987-1988, 1990, 1993-1996, 2001, 2003, 2005-2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1987-1988, 1990, 1993-1996, 2001, 2003, and 2005-2008

Table 11. Respondents Who Use Smokeless Tobacco, South Dakota 2008

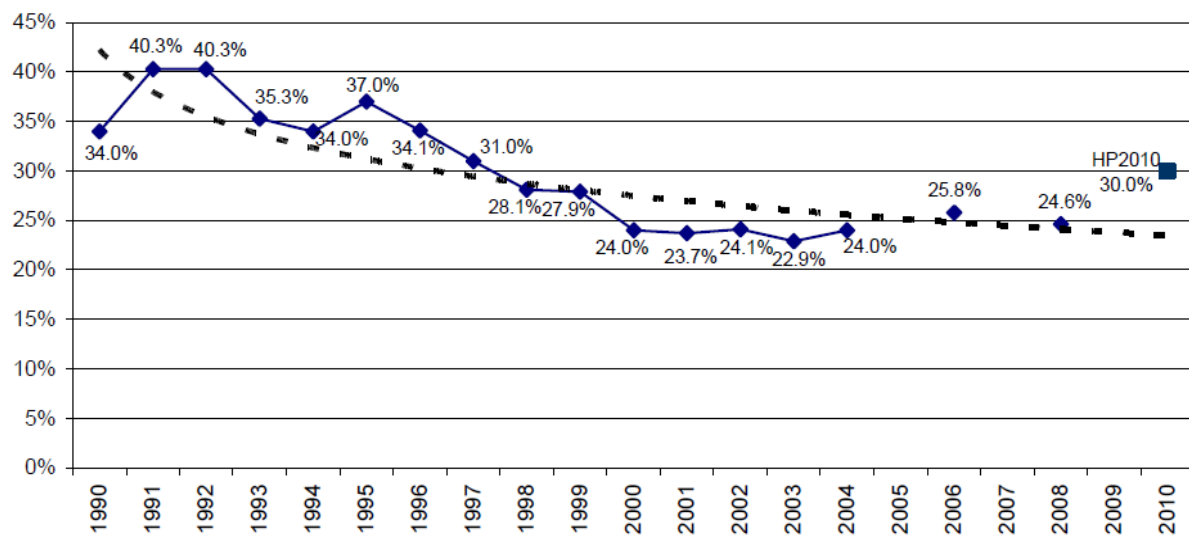
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,854	5.3	(4.5-6.3)	2,787	10.5	(8.9-12.3)	4,067	0.3	(0.2-0.6)
Age									
18-24	217	6.5	(3.4-11.9)	*	*	*	*	*	*
25-34	653	10.2	(7.7-13.4)	262	19.1	(14.3-25.0)	391	0.7	(0.2-1.7)
35-44	890	7.8	(5.9-10.3)	363	15.1	(11.4-19.9)	527	0.5	(0.2-1.2)
45-54	1,333	4.2	(3.1-5.7)	590	8.0	(5.8-10.9)	743	0.4	(0.1-1.2)
55-64	1,417	2.5	(1.7-3.7)	603	4.9	(3.3-7.2)	814	0.0	-
65-74	1,119	2.1	(1.3-3.4)	483	4.3	(2.7-7.0)	636	0.1	(0.0-0.7)
75+	1,176	1.4	(0.8-2.4)	379	3.3	(1.8-5.9)	797	0.1	(0.0-0.9)
Race									
White	6,034	5.3	(4.4-6.3)	2,450	10.5	(8.8-12.5)	3,584	0.2	(0.1-0.4)
American Indian	611	7.2	(4.8-10.7)	241	11.4	(7.0-17.9)	370	3.3	(1.7-6.5)

Breast and Cervical Cancer

NO MAMMOGRAM

Definition: Female respondents, ages 40 and older, who have not had a mammogram in the past two years.

Figure 10. Percent of Female Respondents, Ages 40 and Older, Who Have Not Had a Mammogram in the Past 2 Years, 1990-2004, 2006, and 2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2008

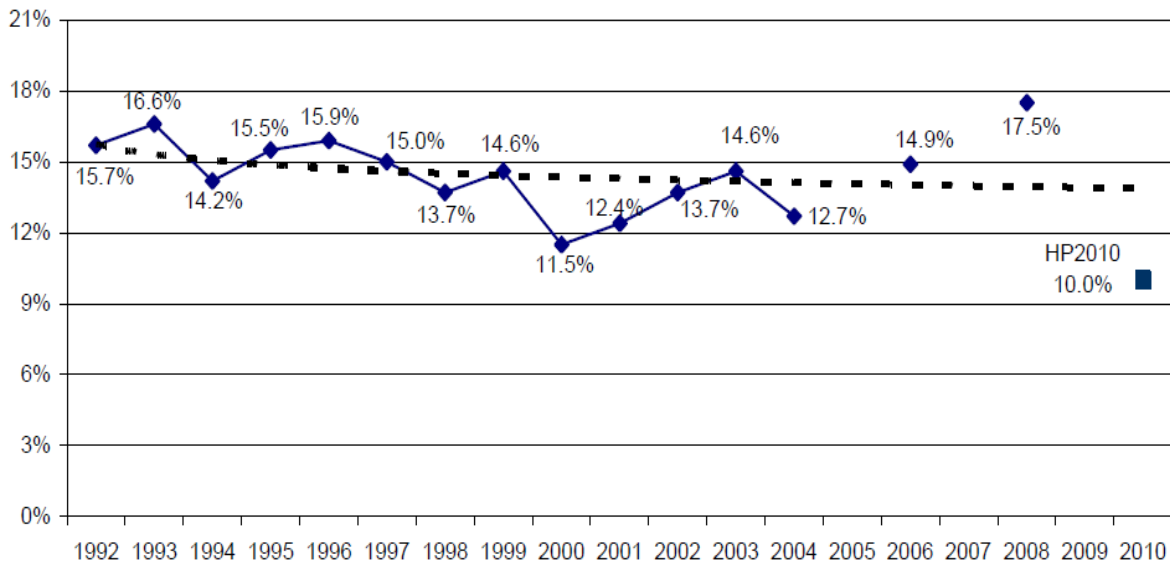
Table 12. Female Respondents, Ages 40 and Older Who Have Not Had a Mammogram in the Past 2 years, South Dakota 2008

Table 33 Female Respondents, Ages 40 and Older, Who Have Not Had a Mammogram in the Past 2 Years, 2008									
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	3,251	24.6	(22.8-26.5)	-	-	-	3,251	24.6	(22.8-26.5)
Age									
18-24	-	-	-	-	-	-	-	-	-
25-34	-	-	-	-	-	-	-	-	-
35-44	286	40.8	(34.2-47.7)	-	-	-	286	40.8	(34.2-47.7)
45-54	745	26.3	(22.7-30.3)	-	-	-	745	26.3	(22.7-30.3)
55-64	809	17.7	(14.8-21.0)	-	-	-	809	17.7	(14.8-21.0)
65-74	633	17.5	(14.1-21.5)	-	-	-	633	17.5	(14.1-21.5)
75+	778	24.0	(20.8-27.6)	-	-	-	778	24.0	(20.8-27.6)
Race									
White	2,946	24.6	(22.7-26.5)	-	-	-	2,946	24.6	(22.7-26.5)
American Indian	235	29.3	(22.0-37.9)	-	-	-	235	29.3	(22.0-37.9)

INSUFFICIENT CERVICAL CANCER SCREENING

Definition: Female respondents, ages 18 and older, who have not received a Pap test within the past three years.

Figure 11. Percent of Female Respondents, Who Had Insufficient Cervical Cancer Screening, South Dakota 1992-2004, 2006, 2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1992-2004, 2006, and 2008

Table 13. Female Respondents, Who Had Insufficient Cervical Cancer Screening, South Dakota 2008

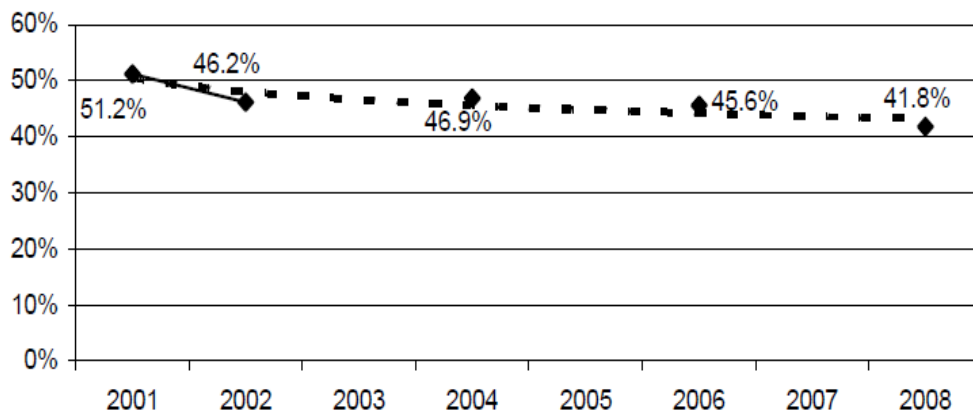
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	2,815	17.5	(15.4-19.8)	-	-	-	2,815	17.5	(15.4-19.8)
Age									
18-24	124	23.5	(15.3-34.5)	-	-	-	124	23.5	(15.3-34.5)
25-34	384	8.1	(5.4-12.1)	-	-	-	384	8.1	(5.4-12.1)
35-44	463	11.0	(7.9-15.1)	-	-	-	463	11.0	(7.9-15.1)
45-54	547	16.5	(13.0-20.6)	-	-	-	547	16.5	(13.0-20.6)
55-64	523	13.5	(10.6-17.1)	-	-	-	523	13.5	(10.6-17.1)
65-74	349	20.3	(15.8-25.7)	-	-	-	349	20.3	(15.8-25.7)
75+	425	45.6	(40.0-51.3)	-	-	-	425	45.6	(40.0-51.3)
Race									
White	2,432	16.8	(14.7-19.2)	-	-	-	2,432	16.8	(14.7-19.2)
American Indian	296	20.5	(14.1-28.8)	-	-	-	296	20.5	(14.1-28.8)

Prostate Cancer

NO PROSTATE-SPECIFIC ANTIGEN (PSA) TEST

Definition: Males, aged 40 and older, who have not had a PSA test within the past two years.

Figure 12. Percent of Male Respondents, Ages 40 and Older, Who Have Not Had a PSA Test Within the Past 2 years, South Dakota 2001-2002, 2004, 2006, and 2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2001-2002, 2004, 2006, and 2008

Table 14. Male Respondents, Ages 40 and Older, Who Have Not Had a PSA Test Within the Past 2 years, 2008

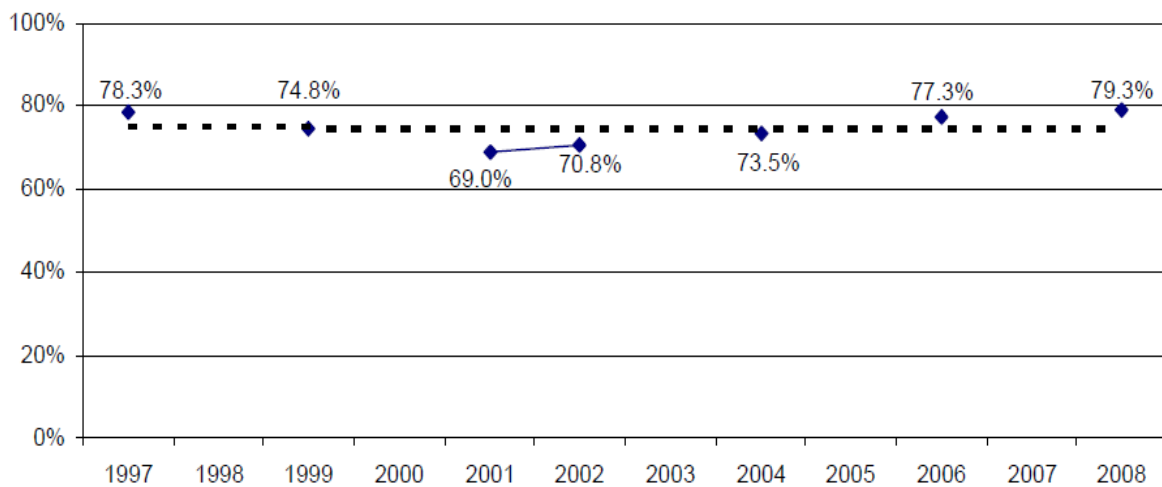
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	2,165	41.8	(39.2-44.5)	2,165	41.8	(39.2-44.5)	-	-	-
Age									
18-24	-	-	-	-	-	-	-	-	-
25-34	-	-	-	-	-	-	-	-	-
35-44	187	82.7	(75.4-88.2)	187	82.7	(75.4-88.2)	-	-	-
45-54	562	55.3	(50.3-60.2)	562	55.3	(50.3-60.2)	-	-	-
55-64	591	27.8	(23.6-32.3)	591	27.8	(23.6-32.3)	-	-	-
65-74	472	14.9	(11.7-18.8)	472	14.9	(11.7-18.8)	-	-	-
75+	353	19.1	(15.0-23.9)	353	19.1	(15.0-23.9)	-	-	-
Race									
White	1,958	41.0	(38.3-43.8)	1,958	41.0	(38.3-43.8)	-	-	-
American Indian	149	54.0	(42.9-64.7)	149	54.0	(42.9-64.7)	-	-	-

Colorectal Cancer

NO BLOOD STOOL TEST

Definition: Respondents aged 50 and older that have not had a blood stool test using a home kit within the past two years.

Figure 13. Percent of Respondents, Ages 50 and Older, Who Have Not Had a Blood Stool Test Using Home Kit Within the Past 2 years, South Dakota 1997, 1999, 2001-2002, 2004, 2006 and 2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1997, 1999, 2001-2002, 2004, 2006, and 2008

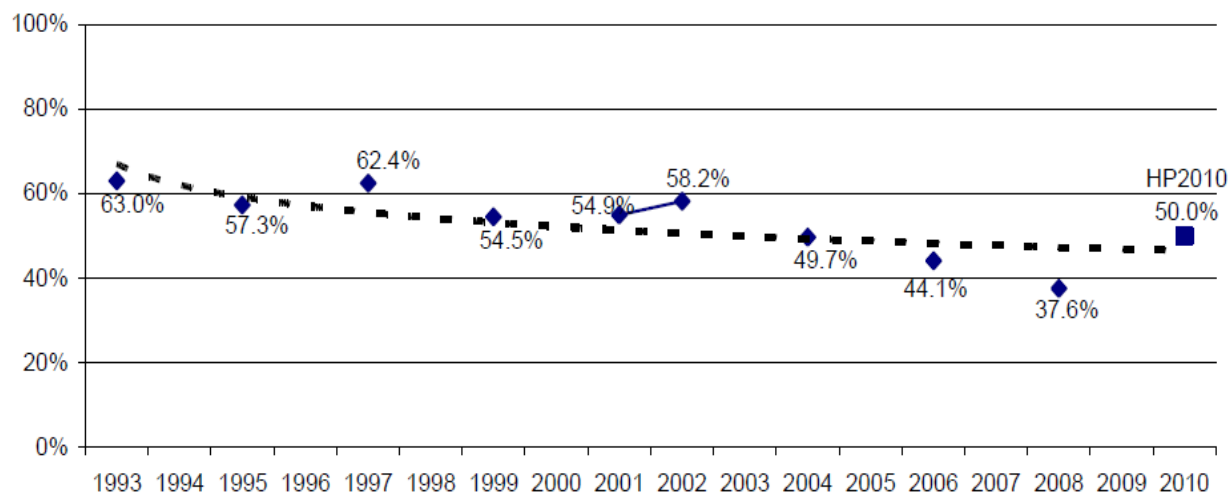
Table 15. Respondents, Ages 50 and Older, Who Have Not Had a Blood Stool Test Using Home Kit Within the Past 2 years, South Dakota 2008

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	4,351	79.3	(77.8-80.6)	1,751	79.1	(76.8-81.2)	2,600	79.4	(77.5-81.2)
Age									
18-24	-	-	-	-	-	-	-	-	-
25-34	-	-	-	-	-	-	-	-	-
35-44	-	-	-	-	-	-	-	-	-
45-54	708	83.2	(79.8-86.2)	302	82.0	(76.5-86.5)	406	84.4	(80.1-88.0)
55-64	1,405	81.0	(78.5-83.3)	601	80.9	(77.1-84.2)	804	81.1	(77.8-84.1)
65-74	1,100	75.2	(72.1-78.0)	476	75.8	(71.2-79.9)	624	74.7	(70.5-78.5)
75+	1,138	76.4	(73.3-79.2)	372	75.8	(70.4-80.5)	766	76.8	(72.9-80.3)
Race									
White	4,014	79.2	(77.7-80.6)	1,610	79.5	(77.1-81.6)	2,404	79.0	(77.0-80.8)
American Indian	246	78.3	(68.9-85.4)	*	*	*	*	*	*

NEVER HAD SIGMOIDOSCOPY OR COLONOSCOPY

Definition: Respondents aged 50 and older that have never had a sigmoidoscopy or colonoscopy.

Figure 14. Percent of Respondents, Ages 50 and Older, Who Have Not Had a Sigmoidoscopy Using Home Kit Within the Past 2 years, South Dakota 1993, 1995, 1997, 1999, 2001-2002, 2004, 2006 and 2008



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1993, 1995, 1997, 1999, 2001-2002, 2004, 2006, and 2008

Table 16. Percent of Respondents, Ages 50 and Older, Who Have Not Had a Sigmoidoscopy Using Home Kit Within the Past 2 years, South Dakota 2008

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	4,415	37.6	(35.8-39.4)	1,765	38.1	(35.4-40.9)	2,650	37.1	(34.9-39.4)
Age									
18-24	-	-	-	-	-	-	-	-	-
25-34	-	-	-	-	-	-	-	-	-
35-44	-	-	-	-	-	-	-	-	-
45-54	711	55.0	(50.6-59.4)	304	54.7	(48.0-61.3)	407	55.3	(49.5-61.0)
55-64	1,424	40.6	(37.5-43.7)	606	41.0	(36.5-45.7)	818	40.1	(36.2-44.1)
65-74	1,117	25.5	(22.5-28.6)	481	25.0	(20.9-29.7)	636	25.8	(21.9-30.2)
75+	1,163	27.0	(24.1-30.1)	374	26.4	(21.6-31.9)	789	27.4	(23.9-31.2)
Race									
White	4,075	36.9	(35.1-38.7)	1,622	37.5	(34.7-40.4)	2,453	36.4	(34.1-38.7)
American Indian	246	60.1	(51.3-68.4)	*	*	*	*	*	*